

Communicable Disease Research

The Centers for Disease Control (CDC), Atlanta, Georgia, is one of six major agencies of the U.S. Public Health Service. Among a number of other responsibilities, CDC conducts a national program to combat many types of communicable diseases that are spread from person to person or by animals, insects and the environment. CDC's Clinical Chemistry Division is



active in many areas of this effort, including development and evaluation of techniques, materials, chemical reagents and devices used in public health laboratories. In one phase of its work, the Division makes regular use of a program called FITLOS, supplied by NASA's Computer Software Management and Information Center (COSMIC)[®] at the University of Georgia (see page 66). FITLOS is used for analyzing data from radioimmunoassays, which involve testing human body substances—such as hormones—to provide information on how deficits or excesses of these substances affect a body's ability to ward off disease.

Above, a CDC chemist is preparing a hormone sample for use in a radioimmunoassay. At left, the chemist is working at a liquid scintillation counter; the counter measures the amount of radioactive material in the sample, a basis for determining the patient's deficit or excess amount of hormone. The counter's data is analyzed by the FITLOS program. FITLOS data, in turn, aids in establishing reference methods which can be used by hospitals and other health laboratories in their radioimmunoassays. Use of COSMIC's FITLOS enabled CDC to avoid the cost of designing and developing an entirely new program.

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